

REMARKS

Prior to entry of this amendment, Claims 1-21 were pending in this application, with all claims standing rejected. No claims are canceled and no claims are added. Hence, Claims 1-21 are presently pending in this application.

SUMMARY OF OFFICE ACTION

Claims 1, 2, 6, 7, 9, 10, 13-15 and 19-21 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Kekic et al. ("*Kekic*"; U.S. Pat. No. 6,664,978) in view of Paulsen et al. ("*Paulsen*"; U.S. Pat. No. 6,055,575); Claims 3 and 16 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Paulsen*, in further view of RFC 2571, "An Architecture for Describing SNMP Management Frameworks", written by D. Harrington ("*Harrington*"); Claims 4, 8, 11 and 17 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Paulsen*, in further view of RFC 2575, "View-based Access Control Model for the Simple Network Management Protocol", written by B. Wijnen ("*Wijnen*"); Claims 5, 12 and 18 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Paulsen*, in further view of Luciani et al. ("*Luciani*"; U.S. Pat. No. 6,614,791); and Claim 21 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Luciani*.

REJECTIONS BASED ON PRIOR ART

Rejections under 35 U.S.C. §103(a)

(1) Claims 1, 2, 6, 7, 9, 10, 13-15 and 19-21

The Office Action rejected Claims 1, 2, 6, 7, 9, 10, 13-15 and 19-21 under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Paulsen*. This rejection is traversed.

(A) Introduction

The Office Action did not establish a *prima facie* case of obviousness with respect to Claims 1, 2, 6, 7, 9, 10, 13-15 and 19-21, as discussed hereafter. Generally, *Kekic* is directed to network management and *Paulsen* is directed to virtual private networks. However, there is no teaching or suggestion in the references, either independently or collectively, that would motivate one skilled in the art to attempt to combine teachings from the respective references to achieve the subject matter claimed. Furthermore, no combination of teachings from the cited references teaches or suggests each and every feature recited in these claims.

Examination of patent claims requires that a claim be examined in its entirety, as a whole. It is well-settled law that “[i]t is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious” and that “[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *In re Fritch*, 972 F.2d 1260 (Fed. Cir. 1992), quoting *In re Fine*, 837 F.2d 1071, 1075 (Fed. Cir. 1988).

It appears that the Office Action is not examining Claim 1 as a whole, and uses the embodiment of Claim 1 as a template to piece together alleged teachings of the prior art to allege Claim 1 is obvious. When interpreted as a whole, Claim 1 recites, *inter alia*, a method in which a particular VPN is identified from a management protocol operation request so that a subset of managed objects associated with network devices participating in that particular VPN can be identified. Consequently, access to managed objects on network devices can be controlled in a secure manner, consistent with the security provided by the virtual private network.

Applicants are not attempting to claim virtual private networks, *per se*, or network management, *per se*. Rather, the claimed subject matter describes particular ways in which to ensure that particular managed objects (e.g., from an SNMP MIB) are accessible only by devices that are participating in a VPN that is associated with the particular managed objects.

(B) Independent Claims 1, 14, 19 and 20

The Office Action relies on the disclosure of *Kekic* for the subject matter related to network management.

Figs. 1-5c of *Kekic* are relied upon by the Office Action for a teaching of the preamble of Claim 1, namely for a teaching of controlling access of network management requests directed to network devices that participate in a virtual private network (VPN). Neither Figs. 1-5c nor any other part of *Kekic* even mentions VPNs. Hence, *Kekic* could not and does not provide a teaching of identifying a subset of managed objects that requests associated with the virtual private network are permitted to access.

The Office Action moves to *Paulsen* for an alleged teaching of determining a VPN identifier in the request. However, the cited passage of *Paulsen* (col. 7, lines 31-39) merely describes what is a typical challenge/response communication associated with an authentication phase in establishing a virtual private network (VPN). Significantly, *Paulsen* teaches nothing about the use of a VPN identifier in a management protocol operation request. The mere reference to a VPN authentication phase between a client and a server, which is not the same as including a VPN identifier in a network management operation request, does not meet the standard required of a reference for its alleged contribution to an obviousness rejection. Therefore, the disclosed subject matter of the cited references does not meet the standard required for a *prima facie* obviousness rejection.

It is this inclusion of VPN identifiers in a network management operation request, to facilitate identification of a subset of objects, which provides the mechanism for maintaining the security of managed objects corresponding to the VPN, without having to modify standard MIB structure. Hence, requests associated with a particular VPN, i.e., the VPN identified in the request, are limited to accessing particular managed objects (e.g., from MIBs) that are mapped to corresponding VPN identifiers (*see*, e.g., the respective mappings recited in Claims 2, 3, 5, 6).

Furthermore, it is this inclusion of VPN identifiers in a network management operation request, and its particular use in facilitating identification of a subset of objects whose access is limited to requests associated with a corresponding VPN, that is not taught or suggested in the combined teachings of *Kekic* and *Paulsen*. Disparate disclosures involving, generally, establishing and accessing VPNs (*Paulsen*) and a client-

server network management system (*Kekic*), do not provide the required teachings nor the required impetus to combine the available teachings of these references which would make obvious to one skilled in the art the subject matter recited in Claim 1. The Office Action is impermissibly using the disclosure of the present application in hindsight to reconstruct the claimed subject matter, where the references relied upon for the rejection of the claims simply do not teach the subject matter recited in Claim 1, as shown above. Therefore, in view of the foregoing, Claim 1 is patentable over the cited references of record.

Claim 1 is amended herein, not for reasons related to patentability, but generally in order to further emphasize the previously recited relationship between the network management request and the corresponding managed objects associated with network devices participating in the VPN that is referenced in the request. Thus, this further emphasis imparted into Claim 1 does not narrow the claimed subject matter and is tangential to any equivalents of the corresponding claim elements and, therefore, should not trigger prosecution history estoppel under the *Festo* line of case law.

Independent Claims 14, 19 and 20 recite subject matter that is generally similar to that of Claim 1, but recited in different claim formats. Therefore, Claims 14, 19 and 20 are patentable over the cited references of record for at least the same reasons as Claim 1.

(C) Independent Claims 9 and 21

Independent Claims 9 and 21 recite some features that are similar enough to Claim 1 that the arguments presented herein in reference to Claim 1 also apply to Claims 9 and 21.

Generally, Claim 9 recites the use of a VPN identifier in a management protocol operation request. More specifically, Claim 9 recites use of a VPN identifier, embodied in a security name value within a network management protocol operation request, for matching with an associated MIB view, in a view-based access control model, that corresponds with the operation, for managing the processing of such operations on managed objects in the MIB. The cited references do not teach any use of a VPN identifier within a network management protocol operation request. Therefore, Claim 9 is patentable over the cited references of record.

Generally, Claim 21 recites the use of a VPN identifier in an SNMP request. More specifically, Claim 21 recites use of a VPN identifier, embodied in an SNMP request, for identifying particular VPN-associated managed objects from a MIB that is associated with a network device participating in multiple VPNs. The cited references do not teach any use of a VPN identifier within a network management protocol operation request, to manage access to managed objects based on specified VPN associations. Therefore, Claim 21 is patentable over the cited references of record.

(D) Dependent Claims 2, 6, 7, 10, 13, and 15

Dependent claims 2, 6, 7, 10, 13, and 15 depend, either directly or indirectly, from Claims 1, 9, 14, and 20. Therefore, these claims are patentable over *Kekic* and *Paulsen* for at least the same reasons as the claims from which these claims depend.

Furthermore, each of these claims recites additional features that place the respective claim in condition for allowance over the cited references of record. For example, neither *Kekic* nor *Paulsen* disclose the specific use of SNMPv3 securityName values to identify corresponding VPNs, for use in limiting access to certain managed objects in accordance with the corresponding VPN-based security, such as in Claim 7.

(2) Claims 3 and 16

The Office Action rejected Claims 3 and 16 under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Paulsen*, in further view of *Harrington*. This rejection is traversed.

Dependent Claims 3 and 16 depend from Claims 1 and 14, respectively. The Office Action again relies on *Kekic* and *Paulsen* for a teaching of the features of Claims 1 and 14. However, the cited references do not meet the standard for establishing a *prima facie* case of obviousness with respect to Claims 3 and 16 because the cited references do not collectively teach or suggest each and every feature recited in these claims, as discussed herein primarily in reference to Claim 1. Furthermore, *Harrington* does not cure the deficiencies in the teachings of *Kekic* and *Paulsen*. Therefore, Claims 3 and 16

are patentable over *Kekic*, *Paulsen*, and *Harrington* for at least the same reasons as the claims from which these claims depend.

In addition, Claims 3 and 16 recite additional features that are not taught or suggested in the cited references. For example, *Harrington* does not teach mapping VPN identifiers to views of subsets of managed objects by associating, in entries in a view-based access control model (VACM), SNMPv3 securityName values to corresponding MIB Views. Rather, the cited passage of *Harrington* merely and generally describes the use of securityName values to represent principals, on whose behalf SNMP services are provided or processing takes place. *Harrington* does not come close to describing the specific use of securityName values to identify a VPN, from which a subset of corresponding managed objects are identified, as in the embodiment recited in Claims 3 and 16 and summarized above.

(3) Claims 4, 8, 11 and 17

Claims 4, 8, 11 and 17 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Paulsen*, in further view of *Wijnen*. This rejection is traversed.

Dependent Claims 4, 8, 11 and 17 depend directly or indirectly from Claims 1, 9 or 14. The Office Action again relies on *Kekic* and *Paulsen* for a teaching of the features of Claims 1, 9 and 14. However, the cited references do not meet the standard for establishing a *prima facie* case of obviousness with respect to Claims 4, 8, 11 and 17 because the cited references do not collectively teach or suggest each and every feature

recited in these claims, as discussed herein primarily in reference to Claim 1.

Furthermore, *Wijnen* does not cure the deficiencies in the teachings of *Kekic* and *Paulsen*.

Therefore, Claims 4, 8, 11 and 17 are patentable over *Kekic*, *Paulsen*, and *Wijnen* for at least the same reasons as the claims from which these claims depend.

In addition, Claims 4, 8, 11 and 17 recite additional features that are not taught or suggested in the cited references. For example, *Wijnen* does not teach associating VPN identifiers with SNMPv3 securityName values, in entries in a view-based access control model (VACM) that associates securityName values to corresponding MIB Views, as recited in Claims 4 and 17. Rather, the cited passage of *Wijnen* generally describes the use of MIB Views in relation to access rights, and access policies in the context of the VACM. *Wijnen* does not describe the specific use of VACM and securityName values to identify a VPN, as in the embodiment recited in Claims 4 and 17 and summarized above.

(4) Claims 5, 12 and 18

Claims 5, 12 and 18 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Paulsen*, in further view of *Luciani*. This rejection is traversed.

Dependent Claims 5, 12 and 18 depend directly or indirectly from Claims 1, 9 or 14, respectively. The Office Action again relies on *Kekic* and *Paulsen* for a teaching of the features of Claims 1, 9 and 14. However, the cited references do not meet the standard for establishing a *prima facie* case of obviousness with respect to Claims 5, 12 and 18 because the cited references do not teach or suggest each and every feature recited

in these claims, as discussed herein primarily in reference to Claim 1. Furthermore, *Luciani* does not cure the deficiencies in the teachings of *Kekic* and *Paulsen*. Therefore, Claims 5, 12 and 18 are patentable over *Kekic*, *Paulsen*, and *Luciani* for at least the same reasons as the claims from which these claims depend.

In addition, Claims 5, 12 and 18 recite additional features that are not taught or suggested in the cited references. For example, *Luciani* does not teach identifying a MIB variable referenced in the request, and determining whether the management protocol operation of the request is allowed for the variable based on one or more views referenced in a mapping of VPNs to corresponding views of subsets of managed objects, as recited in Claims 5, 12 and 18. Rather, the cited passage of *Luciani* describes identifying a VPN from a packet, for adding/deleting a VPN from a MPOA/NHRP network.

(5) Claim 21

Claim 21 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over *Kekic* in view of *Luciani*. This rejection is traversed.

The Office Action relies on *Kekic* and *Luciani* for a teaching of the features of Claim 21. However, the cited references do not meet the standard for establishing a *prima facie* case of obviousness with respect to Claim 21 because the cited references do not teach or suggest each and every feature recited in these claims, as discussed herein primarily in reference to *Kekic* and Claim 1. Furthermore, there is no teaching or suggestion in *Kekic* and/or *Luciani*, either independently or collectively, that would

motivate one skilled in the art to attempt to combine teachings from the respective references to successfully achieve the subject matter claimed. Furthermore, no combination of teachings from the cited references teaches or suggests each and every feature recited in these claims.

Generally, Claim 21 recites the use of a VPN identifier in an SNMP request. More specifically, Claim 21 recites use of a VPN identifier, embodied in an SNMP request, for identifying particular VPN-associated managed objects from a MIB that is associated with a network device participating in multiple VPNs. Neither *Kekic* nor *Luciani* teach any use of a VPN identifier within a network management protocol operation request, to manage access to managed objects based on specified VPN associations. As shown above, *Kekic* does not disclose any subject matter related to VPNs. *Luciani* does disclose identifying a VPN in a packet (via a tagging mechanism or header; *see* Abstract) so that packets from multiple VPNs can be multiplexed. However, *Luciani* does not teach or suggest identifying a VPN in an SNMP request message, for use in identifying particular VPN-associated managed objects from a MIB that is associated with a network device participating in multiple VPNs, as recited in Claim 21. Therefore, Claim 21 is patentable over the cited references of record.

CONCLUSION

For at least the reasons indicated above, Applicants submit that all of the pending claims (1-21) present patentable subject matter over the references of record, and are in condition for allowance. Therefore, Applicants respectfully request that a timely Notice

of Allowance be issued in this case. If the Examiner has questions regarding this case, the Examiner is invited to contact Applicant's undersigned representative.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made. Please charge any shortages in fees due in connection with the filing of this paper, including extension of time fees, or credit any overages to Deposit Account No. 50-1302.

Respectfully Submitted,

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